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Q gene exon 5

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R gene exon 7

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CR1-L

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R gene exon 2

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U gene exon 3

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U gene exon 6

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71201	GAGTCTCTAG	AGGTACCAGG	ATATCGGATT	CTGCAACACA	AAGATGAATT
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71451	AGGGTAATAC	AATGTACTCT	ACATATGCAG	CAGAACTAGT	TTATTTCTT
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71701	ATCCAAAACA	CCTTCCCTTG	AGACTCATAC	TCACTGCCA	AAGGGGAAA
71751	ATGTGGACAT	GTGGTGTGAT	AGCCCTCCTC	TTGTACTTGG	CTGTAGTCTG
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71851	AGCTGAAACAA	CTCAGAGTTT	GCATCTGTGA	AACAGCAGCT	GCAATATGGA
71901	TGCAAGAGGC	AATAATAAAA	CACCCAGAAG	ACTCTTCAGT	GTGTGCTACC
71951	TCAGTTTGTA	GGTTGGGGAG	GTTGCACTCT	ACTGTGTGGG	ATTTTTTCAC
72001	TCATTCTCCT	TCAGACATGG	CAGAGGTGAC	CAGTTCACTG	CAGCTGAGAG
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72301	TTTCCTTCT	ATCTAAAGAC	TGCCCTGCTGC	ATATGTTCA	TACTGATT
72351	CCTAATTACT	GTTCAGAATA	AAGCACTACA	AAACCTGTGT	CAAATGTCTG
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72601	TTCAATTATA	TATCTCAAA	GAAGGGCCA	TTTTAACTGA	GTATTCCCCT
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 CR1 - GG

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CR1 - b

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V gene exon 1

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CR1 - c

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V gene exon 2

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Y:OV-1 element

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 Y:OV-1 HOMOLOGY HS-III SITE
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 130751 TATGTATGTC CTGAAGAATT ATGTTGTACT TTTTCCCCC ATTTTTAAAT
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 131201 TTCACATGCA CGCTTCTTAA TTTCTCCTAT TTTGTCAAGA AAATAATAGG
 131251 TCAAGTCTTG TTCTCATTAA TGTCCTGTCT AGCGTGCTC AGATGCACAT
 131301 TGTACATACA AGAAGGATCA AATGAAACAG ACTTCTGGTC TGTTACTACA
 131351 ACCATAGTAA TAAGCACACT AACTAATAAT TGCTAATTAT GTTTCCATC
 NRE: A, B, C regions
 131401 TCCAAGGTTC CCACATTTT CTGTTTCTT AAAGATCCC TTATCTGGTT
 silencer (common site)
 131451 GTAAGTGAAG CTCAAATGGAA CATGAGCAAT ATTTCCAGT CTTCTCTCCC
 131501 ATCCAACAGT CCTGATGGAT TAGCAGAACAA GGCAGAAAAC ACATTGTTAC
 131551 CCAGAATTAA AAACTAATAT TTGCTCTCCA TTCAATCCAA AATGGACCTA
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 131651 AGGTCAAAC TCTGAAGGGA ACCTGTGGGT GGGTCACAAT TCAGACTATA
 Ovalbumin exon L
 131701 TATTCCCCAG GGCTCAGCCA GTGCTGTAC ATACAGCTAG AAAGCTGTAT
 131751 TGCCTTTAGC AGTCAAGCTC GAAAGGTAAG CAACTCTG GAATTACCTT
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 Ovalbumin exon 1
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133401 CAAGCATGGA ATTTTGTGTTT GATGTATTCA AGGAGCTCAA AGTCCACCAT
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 133601 GCACCTTAATT GTATGATAAT GTCCCTTGGAA AACTGCATAG CTCAGAGGCT
 133651 GAAAATCTGA AACCAGAGTT ATCTAAAAGT GTGGCCACCT CCAACTCCCA
 133701 GAGTGTACCA CAAATGCAC AGCTAGAAAT CTTGAAACTG GATTGCATAA
 133751 CTTCTTTTG TCATAACCAC TATTTCAGCT ACTATTATTT TCAATTACAG
 Ovalbumin exon 2

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 133901 CAAAATACAG CAGATGAAGC AATCTCTTAA CTGTTCCAAG CCCTCTCTGA
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 134001 AACAGAGAAA AAGAAGGAAG TAACAGGGGA TTCAGAACAA ACAGAAGATA
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 134251 GCACAAAATT GTAAATATTG GAAAAGGACC ACATCAGTGT AGTTACTAGC
 134301 AGTAAGACAG ACAGGATGAA AAATAGTTT GTAAACAGAA GTATCTAACT
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 Ovalbumin exon 3

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 134451 CGTTCACTCT TCACCTAGAG ACATCCTCAA CCAAATCACC AAACCAAATG
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 134751 TGAATGGCTT GCTAAAAGAA TGTCAAATCT TACTATACAG CTATTTCATA
 134801 TTACACTACT AAATACACTA TAAGGCATAG CATGTAGTAA TACAGTGTAA
 134851 AATAGCTTT TACACTACTA TATTATTAAT ATCTGTTAAT TCCAGTCTTG
 134901 CATTTCACAT TTGCAAAACG TTTTGAAATT CGTATCTGAA AGCTGAATAAC
 Ovalbumin exon 4

134951 TCTTGCTTTA CAGGAATACT TGCAAGTGTGT GAAGGAACTG TATAGAGGAG
 135001 GCTTGGAAACC TATCAACTTT CAAACAGCTG CAGATCAAGC CAGAGAGCTC
 135051 ATCAATTCTT GGGTAGAAAG TCAGACAAAT GGTAAGGTAG AACATGCTTT
 135101 GTACATAGTG AGAGTTGGTT CACCCTAATA CTGAGAACCT GGATATAGCT
 135151 CAGCCAGCGT GCTTGCCTT CAAGCTTACC AGAGCTGTTG TATGCCTGTT
 135201 AAGCAGGGCA TACAGTCATG AGGCTCTTGA AAAATCTTAA CAGACAAAGG
 135251 GCAATGGAAA ATCGGAGTTA AGGGATGGTA GGGATAAAAT GCATAGAAAG
 135301 AGGTACCCACA ATTTTGATT TTGCCCTAAT GCCTCTCTGC GTGGTTCCCTC
 135351 AATTTTCTA CTTCATTCTC CATCTCCTCA GAGCATTCTT TTCCCTCATG
 135401 CTTGAAACAC AGATGAAAGA CTGTGAATTG TAACTGAGAT GAAAACATCC
 135451 ACAACCACAC AACCTCTGGT GTGGAGTCAC ATTCTGTTA GGCAAAAAC
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 135751 AAATTCCAGT GGTCTCTCCC CTAATCATAA AATGTACAGG TTGAGTTTTT
 135801 TTGTAACACA GAAATCTCTT CATCTTTAT CTTTTGTTGT GATTCTTTAT
 135851 AGAGAGAGAA ACAAGACTTA CTGACAATAG CAGCAAGAAA ATCAATCTTG
 135901 GAAGAACAAAG ATTGCAGTTG CAAAAACAAA CCAATGTCCT TGCCCCCTACA

135951 TCCTCTTCCC CATAAATTCT ACATTCTCTA TCTACCTTGT GCTTGCCAAAC
 136001 ATGATATACG TAAACTCTCT TTTCGTATTG ATTCTTAAAG GAATTATCAG

Ovalbumin exon 5

136051 AAATGTCCCTT CAGCCAAGCT CCGTGGATT CCAAACGTCA ATGGTTCTGG
 136101 TTAATGCCAT TGTCTTCAAA GGACTGTGGG AGAAAGCATT TAAGGATGAA
 136151 GACACACAAG CAATGCCTTT CAGAGTGACT GAGGTATATG GGCATACCTT
 136201 AGAGATGTAA TCTAGAATTG ATGAAGAGAG TAGACATGTT GTTATATGAA
 136251 CACTGCATTA GCGTATCTGC TCATTTGTCT GCATCTCTT CAGACACTGT
 136301 GTTAAAAGCA GGGAAATTTC CTTATGTCTC TCTCATCACA ATATTCCCTGA
 136351 CATTGCAAAG CTCCTGAGAA ATAACCTTCAG ATTCCCACCTT TTCCTAGGAA
 136401 GGTCTTCCTG GATGAGAACAA ATCAATCATC TTAACTGTAA CTAGATATT
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Ovalbumin exon 6

136501 TTTTTTTTTT GGTTCTCCAG CAAGAAAGCA AACCTGTGCA GATGATGTAC
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 136601 CCTGGAGCTT CCATTTGCCA GTGGGACAAT GAGCATGTTG GTGCTGTTGC
 136651 CTGATGAAGT CTCAGGCCTT GAGCAGGTAT GGCCCTAGAA GTGGCTTCA
 136701 GAATATTAAA AACACATGGA AATTAGCTG TTGTAAAGCT CTTTCAACA
 136751 CAGTTATCCT AAAACATTAA ACCAGCACAA ATTCATCAT GATTCAATAT
 136801 GTGATTGTTG CATAGAAGTG TAGATTTGTC CCACTGGTC CTGCAATAGC
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 136901 TGACACAGCA GACAAGATGA TTCTCACCTA AGCAGCTGTT ACTGTAGTGG
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 137001 TTGGAAAGTT CATATAAGGT TTACTAGTTC TAACTATTAT CTCATTTGGT
 137051 GGCACTCAAT GTGCTTGTGTT CACGCTTCA TAAATTAATC TATCTAAAAA
 137101 TTGGATGTGG TTAAAGCAAT TTCAGAAATA ACATGTACAT AATGTACAAT
 137151 TATTGATATG AACAGAACAC AGGCATAGCA TATTGTAATT AGGAGGACTG
 137201 TAGTTATTTT GAATAGGAAA CACAATGTA TAAATGAGAA TTCAATTGAAA
 137251 TGTTAGTATG CTAACCTCAAT CTAATTATAA AAGATAAAAGA GGCATTTAAT
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 137551 GCAAGGAAAG AAATATTACT AGGTACAAAG CAACATTAGT AATACCAAA
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 137651 ACCCCTCTAG TAGTCACCAAG TGCAACCAGT AACTTTGCTA ATTACATT
 137701 TCTTTTTTA AATGGCAGAT ATAGCTTGA ACTGAGTGAT CATGAACTGG
 137751 TACTGTGTAA ATAAGATGGA AGCATACTTG GGAGCTAAC TTCTAGTTT
 137801 TAAAAACTCA AATTCTCTTAAAGATCAGT TCCCAGTCTA GTAACAGCTG
 137851 ATAGTTAAG TATCAGTAAT TGGCTACCAT TAACAACCTGG CTCCTGAGAG
 137901 GTCTTAAATG TAGAGACAGC TTTAAACTCA AAAGCACAGA GTGATTTTTA
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 138001 TAGCCATCTC ATTATTATTA TTATTAAAG AAATGGCAGC AAGGCTATAA
 138051 AAGAAAAATA AGACAGAGCA GAGAAGAAAG AGTCATGGTA TGCTTTCTA
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 138151 AATCAGTTCA AAAGGTGTAT GCAAAAAAAAC ACATAATAGT AACTAGTACT
 138201 GCATTGCCAG GAAGGAAGTT ATGTCGCCAT TCCATGGATC TCATTCTCAT

Ovalbumin exon 7

138251 TTCCCTGCAG CTTGAGAGTA TAATCAACTT TGAAAAACTG ACTGAATGGA
 138301 CCAGTTCTAA TGTTATGGAA GAGAGGAAGA TCAAAGTGTAA CTACCTCGC
 138351 ATGAAGATGG AGGAAAAATA CAACCTCACA TCTGTCTTAA TGGCTATGGG
 138401 CATTACTGAC GTGTTTAGCT CTTCAAGCCAA TCTGTCTGGC ATCTCCTCAG
 138451 CAGAGAGCCT GAAGATATCT CAAGCTGTCC ATGCAGCACA TGCAAGAAATC

138501 AATGAAGCAG GCAGAGAGGT GGTAGGGTCA GCAGAGGCTG GAGTGGATGC
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 138601 TCAAGCACAT CGCAACCAAC GCCGTTCTCT TCTTTGGCAG ATGTGTTCC
 138651 CCTTAAAAAG AAGAAAGCTG AAAAACTCTG TCCCTTCAA CAAGACCCAG
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 139351 AGGGAAAGAA TGACATGCAG AGGAATAAGT ATGGACACAC AGGCTAGCAG
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 139751 CAAGGCTGGC ATGCTGGAAT GAGCAGGCTT TGGTGGCTTG TAGTTACTGG
 139801 ACAGCACCAC TGACATGGGC AGGGAAAAAA CTGAGCATGG TGAAATCAC
 139851 TGCCTCAAAG CCACCTCTCT GTGCCCTGCAC CATGCTGAA AGCTCTTCTA
 139901 CAGGAGCTGG GTTTGTTCAA GAAAGCTTCT GTTCTCCCA TCTGCTTCTT
 139951 GTACCTTCAC AGGGACAGAG TTAGAAGGGT ACAGCCATGG CTGGAAGGGG
 140001 CTGACTTTCA AATGTGCCTA ATTTCCCTT GGTTGCTGCT GCAGCTGCAG
 140051 AAGAAGGGT TCAGAAGCCA AGAGCTTGA GATAAGGATG CCTAACCTAT
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 140401 TGCACTCTG AGGGTGGAC TGCCTGGAA AGGAAAGAA AGCAAACAGA
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 140801 GATTGCAGGT CAGGAGATAA CAGGGAACT TACTGCAAGA GAGAAAATGA
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W gene exon 6

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MAR-like element

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 MAR-like element
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MENT exon 1

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MENT exon 2

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MENT exon 3

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Z1 gene exon 2

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Z3 gene exon 1

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Fig. 1

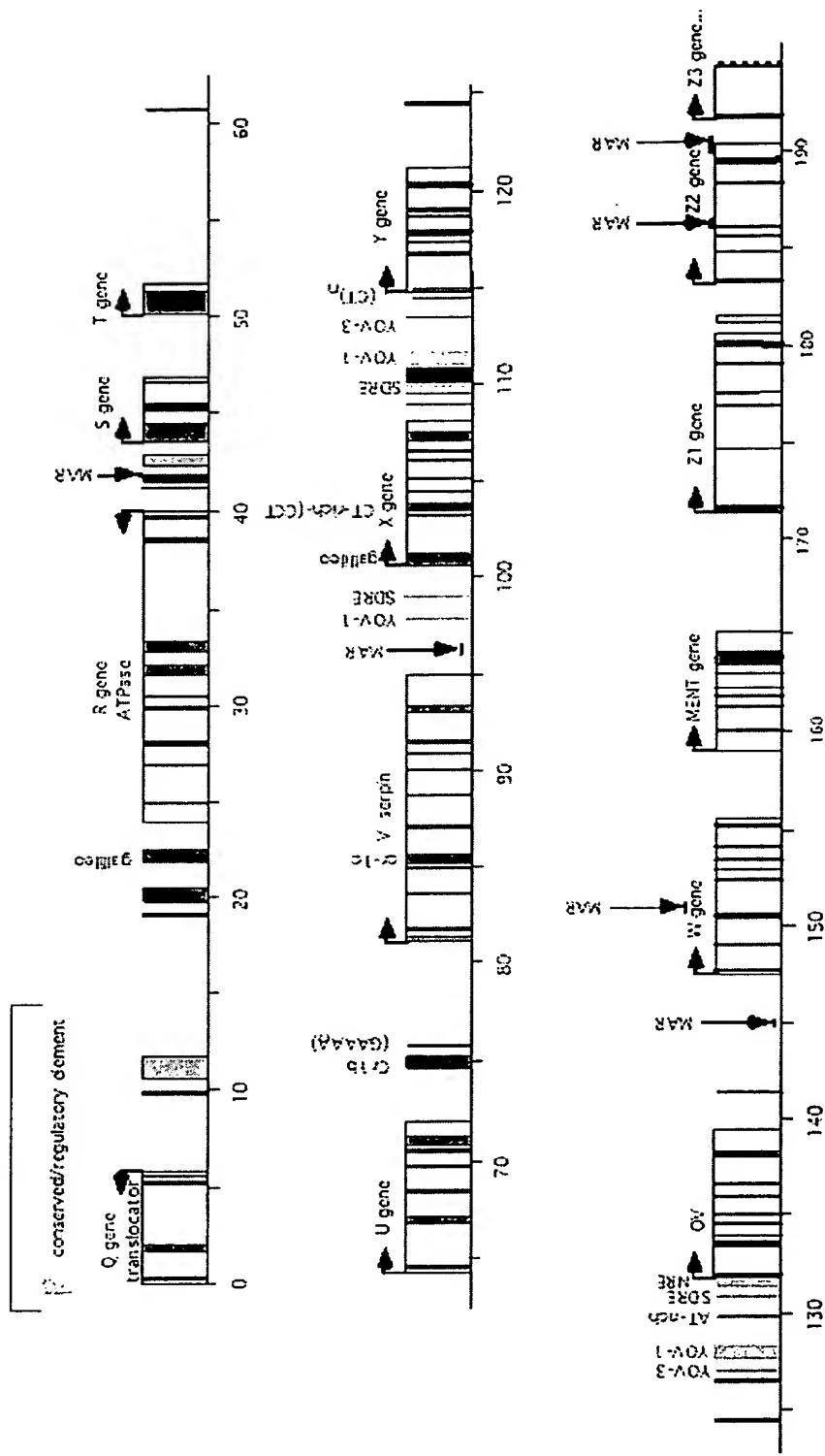
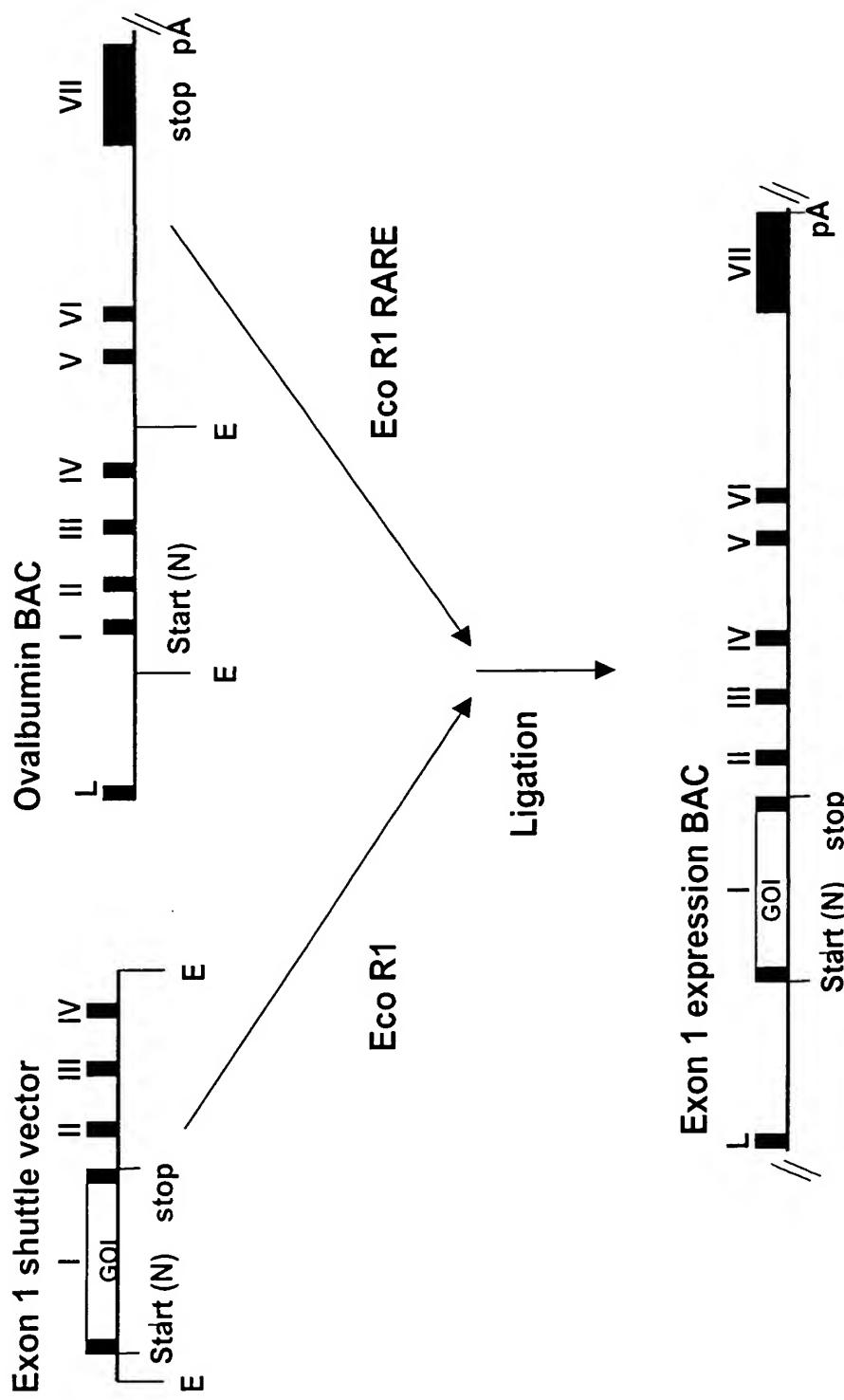


Fig. 2

**Fig. 3**

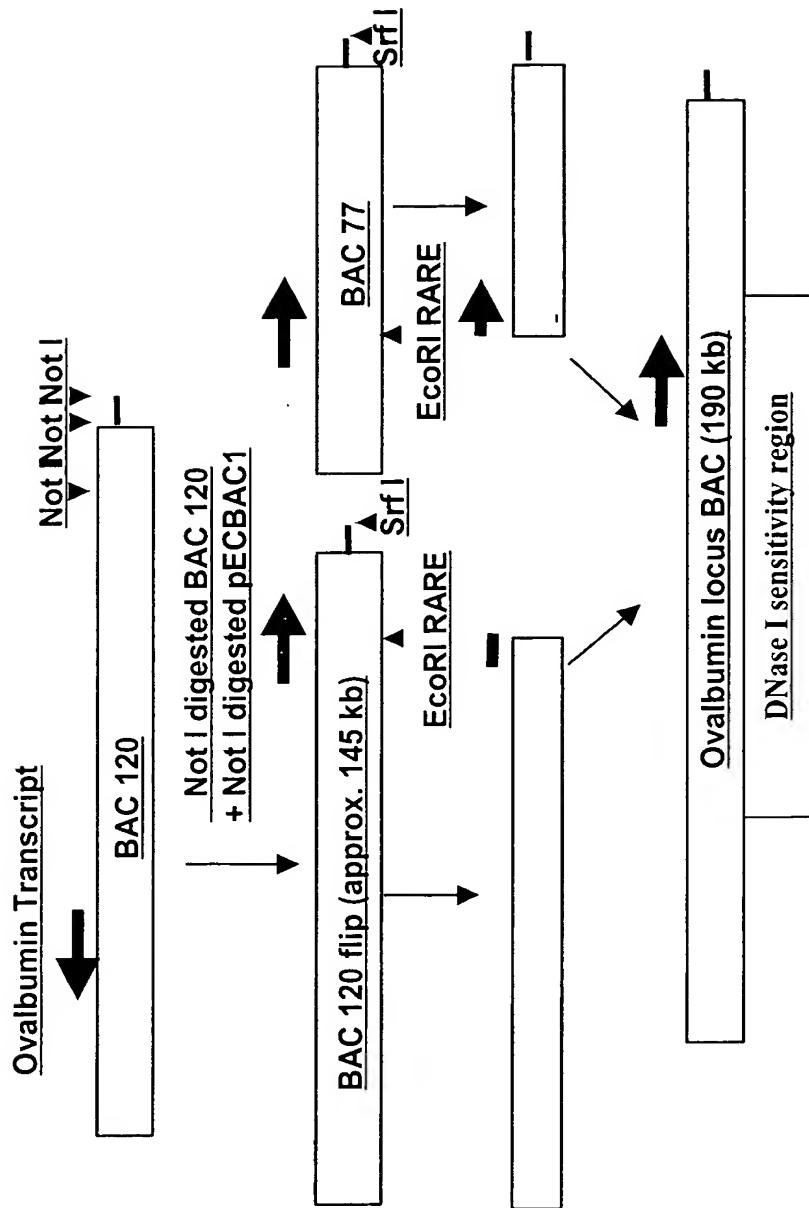
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GCTATTGCTTATTGTAAACCATTATAAGCTGCAATAAACAGTTAACAAACAATTGC	180
ATTCATTTATGTTTCAGGTTCAGGGGGAGGTGTGGGAGGTTTAAAGCAAGTAAAAC	240
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FIG. 4**SEQ ID NO: 3**

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CAGCAGATCTTAACCTGTTAGCACCAAGGATAGCAGCGCTGTTGGATGAGACCCCTG	240
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AAGTACTTCAGAGGATCACCTGTACCTGAAGGAGAAGAAGTACAGCCCCCTGCGCTTGG	420
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Fig. 5

**Fig. 6**